

## **REMARKS**

Claims 1-5, 18-28, and 30 are pending in the present application, with claims 1, 18, and 25 being the independent claims. Claims 1-5, 18-28, and 30 are rejected under 35 U.S.C. §103. No claims are amended. No new matter is added. The outstanding rejections to the claims are respectfully traversed.

### **Overview**

In wireless communications systems, synchronization must be established initially and maintained, even through situations in a wireless environment such as signal fading and handoff of an ongoing telephony call from one base station to another. Encryption synchronization in a wireless communication system can be difficult because the base station and remote unit are physically separated, and also because telephony calls (including low-speed modem calls and facsimile calls) are relatively asynchronous (e.g., no connection without an active call).

Applicants' claimed subject matter is directed to synchronizing a cryptosystem in a wireless communication system. In one embodiment, messages in a standard format that includes control data and payload data are processed, including determining whether the control data contains a particular control message. Messages normally sent between a base station and a remote unit during the setup of both originating and terminating calls are parsed to detect a particular control message that indicates the start of telephony data transmission. Detection of this message indicates a point at which encryption/decryption can begin, and is used to synchronize the cryptosystem.

### **Rejections under 35 U.S.C. §103**

Claims 1-5, 18-28, and 30, are rejected under 35 U.S.C. § 103(a) in view of a combination of a plethora of references. No disrespect or flippancy is intended by the use of 'plethora'. It is respectfully submitted that, although reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention, reliance on so many cited references to form a rejection of a single claim is suggestive that

the claim truly is not disclosed or suggested in the cited art. Also, it is respectfully submitted that establishment of a proper *prima facie* case of obviousness with so many references becomes suspect.

Specifically, claims 1-5, 18-28, and 30 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,991,410 issued to Albert et al. (hereinafter referred to as “Albert”) in view of U.S. Patent No. 5,889,781 issued to Eftimakis et al. (hereinafter referred to as “Eftimakis”), in view of U.S. Patent No. 5,717,689 issued to Ayanoglu (hereinafter referred to as “Ayanoglu”), in further view of U.S. Patent No. 5,613,203 issued to Dupuy et al. (hereinafter referred to as “Dupuy.”)

Albert, Eftimakis, Ayanoglu, and Dupuy, considered separately or in any combination, neither disclose nor suggest all claims limitations. For example, Albert, Eftimakis, Ayanoglu, and Dupuy, considered separately or in any combination, neither disclose nor suggest “a particular control message and wherein the particular control message indicates that a process of establishing a wireless communication connection is being completed” as recited in claim 1.

The Office Action asserts that Albert teaches “a particular control message wherein the control data is used to provide at least one other function related to the wireless communication.” However, the cited portions of Albert describe the use of a compression flag to indicate whether data should be compressed (Albert column 16, lines 39-54), the use of an encryption flag to indicate whether data should be encrypted (Albert column 16, lines 55-67), and the detection of encryption and compression flags and the resulting actions taken by the receiver of the frames (Albert column 17, lines 12-23.) None of the flags described in Albert perform any function other than the single function they are intended to provide. Albert’s encryption flag provides an indication that data should be encrypted only. Albert’s compression flag provides an indication that data should be compressed only. Nowhere in the cited portions of Albert, nor anywhere else in Albert, is a particular control message, wherein the particular control message indicates that a process of establishing a wireless communication connection is being completed, disclosed.

The Office Action admits on page 3 that Albert does not disclose the control message indicates that a process of establishing a wireless communication is being completed. The Office Action asserts that Dupuy discloses a message indicating the process of establishing a wireless communication is being completed. The cited section of Dupuy discloses a SABM message that initializes transmission context data (Dupuy column 1, lines 42-45.) Dupuy further describes the acknowledgement of this message (Dupuy column 1, lines 51-52.) Dupuy does not describe using a SABM to indicate that a process of establishing a wireless communication is being completed. Furthermore, Dupuy's message is limited to the single function of initializing transmission context data. Dupuy's message is not a particular control message, and wherein the particular control message indicates that a process of establishing a wireless communication connection is being completed.

**Claim Limitations Not Addressed In Instant Office Action**

Applicants further note that the Office Action fails to address all features of claim 1. Without providing rationale as to how a reference is being asserted against a claim, the burden to clearly articulate the rejection has not been met. "The goal of examination is to clearly articulate any rejection early in the prosecution process so that the applicant has the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity." (Emphasis added) MPEP § 706. "The pertinence of reference, if not apparent, must be clearly explained and each rejected claim specified." (emphasis added) 37 § CFR 1.104 (c)(2), MPEP 706. To anticipate a claim, a reference must teach every claimed element. MPEP § 2131. Furthermore, the examiner bears the burden of proof to show patent invalidity. See *In re Caveney*, 761 F.2d 671, 674 (Fed. Cir. 1985). Such proof must amount to a preponderance of the evidence to warrant rejection of claims. *Id.* Because the rejection of the claims has not been clearly explained in view of the cited references, this burden has not been met.

For example, the claim limitation: "based on the detecting step, determining the number of control message bytes to be transmitted, loading an encryption synchronization counter with the number of control message bytes to be transmitted and initializing the encryption synchronization counter" does not appear to be addressed. A reference is made on

page 4 of the Office Action that Eftimakis teaches a counter. However, this portion of Eftimakis describes a counter that increments from 0 to 49, and is then reset automatically. Eftimakis uses a predetermined number (49 or 63) for its counter. (Eftimakis column 7, lines 3-18.) There is no disclosure in Eftimakis of determining the number of control message bytes to be transmitted.

Additionally, the claim limitation: “when the encryption synchronization counter is decremented to zero, initializing the cryptosystem using a key” does not appear to be addressed in the Office Action. The Office Action asserts that Albert column 16, lines 55-67, discloses initializing the cryptosystem. However, this portion of Albert discloses the use of a flag to indicate whether data is to be encrypted. There is no teaching of initializing the cryptosystem using a key when an encryption synchronization counter is decremented to zero.

**Prima Facie Case Of Obviousness Has Not Been Established**

It is respectfully submitted that the combined disclosures of references cannot be said to create a prima facie case of obviousness under 35 U.S.C. §103.

The MPEP provides several guidelines for rejecting a claim under 35 U.S.C. 103(a). Specifically, reference is made to MPEP § 2141. III Rationales To Support Rejections Under 35 U.S.C. 103, which states in part:

“Office personnel must explain why the differences(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art. ... The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that “‘[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.’” *KSR*, 550 U.S. at \_\_\_, 82 USPQ2d at 1396.” (Emphasis added)

Additionally, the Examiner should explain how to combine the references, per MPEP 706.02(j).

“35 U.S.C. 103 authorizes a rejection where, to meet the claim, it is necessary to modify a single reference or to combine it with one or more other references. After indicating that the rejection is under 35 U.S.C. 103, the examiner should set forth in the Office action: (A) the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate, (B) the difference or differences in the claim over the applied reference(s), (C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and (D) an explanation >as to< why >the claimed invention would have been obvious to< one of ordinary skill in the art at the time the invention was made\*\*.”  
(Emphasis added)

It is important for an examiner to properly communicate the basis for a rejection so that the issues can be identified early and the applicant can be given fair opportunity to reply. Furthermore, if an initially rejected application issues as a patent, the rationale behind an earlier rejection may be important in interpreting the scope of the patent claims. Since issued patents are presumed valid (35 U.S.C. 282) and constitute a property right (35 U.S.C. 261), the written record must be clear as to the basis for the grant. Since patent examiners cannot normally be compelled to testify in legal proceedings regarding their mental processes (see MPEP § 1701.01), it is important that the written record clearly explain the rationale for decisions made during prosecution of the application.

The Office Action sets forth a conclusory rationale for combining the references in the manner proposed to support the rejection. On page 4 of the Office Action, in connection with the rejection of claim 1, the Office Action states:

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the counter of Eftimakis et al, the SABM message of Dupuy et al. and the airlink packet of Ayanoglu in the Albert et al. system.

Motivation to do so would have been to locate the synchronization information (see Eftimakis et al column 7 lines 3-18) to provide built in CRC

for error detection (see column 22 lines 43-49) and to show acknowledgement of the connection (see Dupuy et al. column 1 lines 42-54).

Applicants first note that the Office Action merely states “see column 22 lines 43-49” in support of the assertion that some motivation is provided by the references, and fails to point out which reference is intended to be cited. Upon examination of all the cited references, Applicants have determined that the only reference containing a column 22 is Ayanoglu. Accordingly, Applicants are proceeding based on the assumption that the Examiner intended to state “see **Ayanoglu** column 22 lines 43-49.” Applicants respectfully request that the Examiner provide a correction if this assumption is incorrect.

Assuming Ayanoglu is the proper reference, Applicants respectfully assert that there is no rational underpinning to support the legal conclusion of obviousness. Firstly, Eftimakis is directed to a system that generates a clock signal with an asynchronous timing generator. The cited portion of Eftimakis discloses a flag system for synchronizing data communication. This is not the same as encryption synchronization. Unlike encryption synchronization, data communication synchronization is a well-known and necessary aspect of any data communication that must be addressed in virtually all communications systems. The cited portion of Ayanoglu describes error-correction techniques, and the use of CRC or Reed-Solomon codes to implement error correction. Applicants fail to find any relevancy of this portion of Ayanoglu to the subject matter of claim 1. Like data communication synchronization, error correction is something that is addressed in virtually all communications networks. However, error correction is not the same as encryption synchronization, and claim 1 is not directed to errors or methods of error correction. Finally, Dupuy is directed to a method of handing over calls between old and new cells of a TDMA network. The cited portion of Dupuy discloses acknowledging a SABM message by a base station. Here again, a known feature of data communications is recited; however, Applicants fail to find any motivation to combine the references. Dupuy is not disclosing encryption synchronization as claimed in claim 1.

Applicants respectfully assert that the motivation analysis presented in the Office Action is deficient at least for the reason that it asserts that references which do not disclose,

describe or suggest any sort of encryption system would motivate one skilled in the art to combine such references to obtain the subject matter of claim 1. Thus, there is no rational underpinning to the reasoning used in the motivation assertion stated in the Office Action. Furthermore, the offered motivation assertion merely takes small aspects of claim 1, finds excerpts in references that arguably describe each aspect (said references Applicants assert do not relate to the subject matter of claim 1), and transforms these excerpts into an argument for unpatentability. In other words, the Office Action is stating that it would have been obvious to combine and modify the prior art because Applicants have taught that such a system would have advantages over the prior art. Applicants respectfully submit that this is not a proper obviousness analysis but rather relies on improper hindsight to select disparate aspects of the prior art and assemble them in the manner recited by claim 1.

In order for a reference or references to render obvious a claim, it must teach or suggest all of the recited elements and their arrangement, and there must be provided some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. As set forth herein, Applicants respectfully submit that the cited references do not disclose or suggest each elements of claim 1, and that the motivation rationale articulated in the Office Action lacks any rational underpinning. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. § 102(b).

Independent claims 18 and 25 are rejected on a substantially similar basis as claim 1. Applicants assert that the arguments set forth above apply to claims 18 and 25. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 18 and 25 under 35 U.S.C. § 102(b).

Applicants acknowledge that the Office Action establishes additional grounds for rejection of the claims that are dependent upon claims 1, 18 and 25. However, in view of the traversals set forth with respect to the independent claims, Applicants believe that all such dependent claims are in condition for allowance, rendering the rejections of those claims moot. Applicants therefore respectfully request reconsideration and withdrawal of the rejections of all claims which depend from independent claims 1, 18 and 25, including claims 2-5, 19-24, 26-28, and 30. Applicants believe that this response completely and accurately

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addresses all grounds of rejection. Applicants reserve the right to challenge the rejection of any of those dependent claims in any future response that may be forthcoming.

### **CONCLUSION**

In view of the foregoing, Applicant respectfully submits that this application, including claims 1-5, 18-28 and 30, is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,

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